

**FANNIE MAE  
PHYSICAL NEEDS ASSESSMENT  
GUIDANCE TO THE PROPERTY EVALUATOR**

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## **Introduction**

While many factors affect the soundness of a mortgage loan over time, one of the most significant is the physical condition of the property - past, present and future. A prudent lender must be concerned with the past maintenance and improvements because they may indicate owner and management practices as well as expenses to be incurred in the future. The lender must be concerned with the condition of the property at the time the loan is made, and over the term of the loan, because property condition may directly impact marketability to prospective tenants and the need for major expenditures may impact the economic soundness and value of the property. The lender must also be concerned with the condition of the property at the end of the loan term. If the property has deteriorated, the owner may not be able to secure sufficient financing to pay off the loan at maturity.

Most lenders have always given some attention to physical conditions and needs of properties in their underwriting. However, the amount of attention, the data secured, the quality and analysis of that data, and the impact of this information on underwriting has varied widely. Indeed, many properties and the loans that they secure are now in trouble because of inadequate consideration of physical needs in the underwriting coupled with inadequate attention to property maintenance which has diminished the marketability and overall value of the property.

The guidance and forms in this package, together with the guidance provided to our lenders in our Delegated Underwriting and Servicing (DUS) and Multifamily Guides, is based upon a desire to see a more standardized approach to assessing the physical needs of properties that will be securing our loans. These documents attempt to respond to stated desires on the part of our lenders for a “level playing field” among competing lenders who may otherwise have different notions of the level of data and analysis required to assess a property’s physical condition. They also attempt to respond to the needs of property evaluators who, desiring to produce the quantity and quality of information deemed necessary, need specific guidance to avoid the appearance of glossing over problems or providing material which is too detailed or complex to be usable by the underwriters.

These documents are meant to provide useful guidance and tools to the evaluators. They cannot cover all situations and are not meant to be inflexible. They are designed to elicit the judgment of the evaluator (in a format which is useful to the underwriter), not to substitute for it. We welcome comments from evaluators in the field, as we did in developing this package, on improving either our forms or guidance so that this package can best serve the needs of both the evaluators and our lenders. If you have such comments, please contact April LeClair, Director of Multifamily Product Management, 3900 Wisconsin Avenue, N.W., Washington, DC 20016 (202-752-7439).

## **Specific Guidance to the Property Evaluator**

### ***Purpose***

The purpose of the Physical Needs Assessment is to identify and provide cost estimates for the following key items:

- Immediate Physical Needs - repairs, replacements and significant maintenance items which should be done immediately
- Physical Needs Over the Term - repairs, replacements and significant maintenance items which will be needed over the term of the mortgage and two years beyond.

As part of the process, instances of deferred maintenance are also identified.

The assessment is based on the evaluator's judgment of the actual condition of the improvements and the expected useful life of those improvements. It is understood that the conclusions presented are based upon the evaluator's professional judgment and that the actual performance of individual components may vary from a reasonably expected standard and will be affected by circumstances which occur after the date of the evaluation.

This package explains how to use the set of forms provided by Fannie Mae. It is important to recognize that the forms are intended to help the evaluator conduct a comprehensive and accurate assessment. They also present the results of that assessment in a relatively standard format which will be useful to the lender in making underwriting decisions. However, the forms should not constrain the evaluator from fully presenting his or her concerns and findings. The forms should be used and supplemented in ways which facilitate the preparation and presentation of information useful to the lender regarding the physical needs of the property.

The Systems and Conditions forms may be altered and/or computerized to serve the evaluators' needs so long as information is provided on the condition and Effective Remaining Life of all components and the Effective Remaining Life is compared to the standard Expected Useful Life (EUL). The Summary forms may also be extended or computerized so long as the basic format is maintained.

### **Terms of Reference Form**

The lender completes this form for the evaluator. It serves as a reference point for the assessment and provides the evaluator with basic information about the property and the term of the loan. Four additional topics are covered:

- Sampling Expectations - The lender's expectations about the number and/or percentage of dwelling units, buildings and specialized systems to evaluate may be stated. If there is no stated expectation, the evaluator should inspect sufficient units, buildings, and numbers of specialized systems to state with confidence the present and probable future condition of each system at the property. The evaluator should provide a separate statement indicating the sampling systems used to ensure a determination of conditions and costs with acceptable accuracy. If a Sampling Expectation is

provided by the lender which is not adequate to achieve the requisite level of confidence, the evaluator should so advise the lender.

Considerations in determining an adequate sample size are age and number of buildings (especially if the property was developed in phases), total number of units, and variations in size, type and occupancy of units. Effective sampling is based on observing a sufficient number of each significant category. Using the above criteria, categories could include buildings by age of each building (e.g. inspect buildings in the 8 year old phase and in the 11 year old phase), buildings by type (e.g. rowhouse, L-shaped rowhouse, walkup, elevator) and/or buildings by construction materials (e.g. inspect the garden/flat roof/brick walls section and the garden/pitched roof/clapboard walls section). Dwelling units are separate categories from buildings. At a minimum, sampling is by unit size (0/1/2/3/4 bedrooms). There may be further categories if units are differently configured or equipped, or have different occupants (especially family or elderly). Generally, we would expect the percentage of units inspected to decrease as the total number of units increases. Systems which are not unit specific, such as boilers, compactors, elevators and roofs, will often have a 100% sample.

The overriding objective: SEE ENOUGH OF EACH UNIT TYPE AND SYSTEM TO BE ABLE TO STATE WITH CONFIDENCE THE PRESENT AND PROBABLE FUTURE CONDITON.

- Market Issues - In certain instances, market conditions may necessitate action on certain systems. Examples are early appliance replacement or recarpeting, new entry paving, special plantings, and redecorated lobbies. If the owner or lender has identified such an action, the evaluator should include a cost estimation for such action and indicate what, if any, other costs would be eliminated by such action.
- Work In Progress - In some instances, work may be underway (which can be observed) or under contract. When known by the lender, this will be noted. For purposes of the report, such work should be assumed to be complete, unless observed to be unacceptable in quality or scope.
- Management-Reported Replacements - In some instances, the property ownership or management will provide the lender with information about prior repairs or replacements which have been completed in recent years. The lender may provide this information to the evaluator to assist in the assessment of these components. The evaluator should include enough units, buildings, or systems in the sample to reasonably verify the reported repairs or replacements.

## **Systems and Conditions Forms**

It is the responsibility of the evaluator to assess the condition of every system which is present at a property. All conditions, except as noted below, requiring action during the life of the loan must be addressed regardless of whether the action anticipated is a capital or operating expense.

To assist evaluators in reviewing all systems at a property, four Systems and Conditions Forms are provided. Each lists a group of systems typically related by trade and/or location. The four forms are Site, Architectural, Mechanical and Electrical, and Dwelling Units. While the forms have several columns in which information may be recorded, in many instances only the first three columns will be

completed. If the condition of a system is acceptable, the Effective Remaining Life exceeds the term of the mortgage by two years, and no action is required, no other columns need to be completed.

The report is not expected to identify minor, inexpensive repairs or other maintenance items which are clearly part of the property owner's current operating pattern and budget so long as these items appear to be taken care of on a regular basis. Examples of such minor operating items are occasional window glazing replacement and/or caulking, modest plumbing repairs, and annual boiler servicing. However, the evaluator should comment on such items in the report if they do not appear to be routinely addressed or are in need of immediate repair.

The report is expected to address infrequently occurring "big ticket" maintenance items, such as exterior painting, all deferred maintenance of any kind, and repairs or replacements which normally involve significant expense or outside contracting. While the evaluator should note any environmental hazards seen in the course of the inspection, environment-related actions, such as removal of lead-based paint, will be addressed in a separate report prepared by an environmental consultant.

## **Using the Systems and Conditions Forms**

### ***Purpose***

The forms can be used both to record actual observations at a specific location and for an overall summary. For example, the Architectural form can be used for a specific building (or group or identical buildings) as well as for summarizing all information for buildings at a property. The same is true for the Dwelling Unit form. An unlabeled form is included which can be used as a second page for any of the Systems and Conditions Forms.

In some instances, the evaluator will note components which, while they may continue to be functional, may reduce marketability of the property. For example, single-door refrigerators or appliances in outmoded colors may have such an impact in some properties. The evaluator should note these items, discuss them with the lender, and provide separate estimates of the cost to replace such items if requested.

### **Items (EUL)**

Each of the four forms has a number of frequently-occurring systems and components listed. This list represents only the most frequently observed and is not meant to be all inclusive. Every system present at the property must be observed and recorded. Any system not listed on the form may be included in the spaces labeled Other. Note that the assessment includes the systems and components in both residential and non-residential structures. Thus, garages, community buildings, management and maintenance offices, cabanas, pools, commercial space, and other non-residential buildings and areas are included.

The Expected Useful Life (EUL) figure which appears in parentheses after the Item is taken from the Expected Useful Life Table provided. This table provides standard useful lives of many components typically found in apartment complexes. Where the parentheses do not contain a number, it is because there are various types of similar components with differing economic lives. The evaluator should turn to the Expected Useful Life Table and select, and insert, the appropriate Expected Useful Life (EUL) number. If the Expected Useful Life (EUL) will, without question, far exceed the term of the mortgage plus two years, the Expected Useful Life (EUL) number need not be inserted.

**Note:** It is recognized that the Expected Useful Life Tables represents only one possible judgment of the expected life of the various components. If we receive substantial material to the effect that one or more of the estimates are inappropriate, we will make adjustments. Until such changes are made, the Tables provide a useful and consistent standard for all evaluators to use. They avoid debate on what the appropriate expected life is and permit focus on the evaluator's judgment of the effective remaining life of the actual component in place, as discussed below.

## **Age**

The evaluator should insert the actual Age of the component or may insert "OR" for original. If the actual age is unknown, an estimate is acceptable. If there is a range in Age (for example, components replaced over time), the evaluator may note the range (i.e., 5-7 years) or may use several lines for the same system, putting a different Age of that system on each line.

## **Condition**

This space is provided to indicate the Condition of the component, generally excellent, good, fair, or poor, or a similar and consistent qualitative evaluation.

## **Effective Remaining Life**

This space is provided for the evaluator to indicate the remaining life of the component as is. For standard components with standard maintenance, the Expected Useful Life Table provided by the Lender could be used to determine Effective Remaining Life by deducting the Age from Expected Useful Life (EUL). However, this should not be done automatically. A component with unusually good original quality or exceptional maintenance could have a longer life. On the other hand, if the component has been poorly maintained or was of below standard original quality, the useful life could be shorter than expected. The evaluator applies his or her professional judgment in making a determination of the Effective Remaining Life. If the Effective Remaining Life is longer than the term of the loan plus two years, no deferred maintenance exists, and no action needs to be taken during the life of the loan, no other columns need to be filled out. The only exception may be Diff? (Difference), as discussed below. This should be noted when the evaluator's estimate of the Effective Remaining Life varies by more than two years from the standard estimate.

## **Diff? (Difference)**

The Age of the component should be deducted from the Expected Useful Life (EUL) in parentheses and the answer compared to the Effective Remaining Life estimated by the evaluator. Where there is a difference of over two years, the evaluator should insert a footnote number in the DIFF? (Difference) column and supply, in an attached list of footnotes, a brief statement of why, in his or her judgment, the Effective Remaining Life of the component varies from the standard estimate. This approach provides consistency among evaluators while making best of the evaluators' professional judgment.

## **Action**

If any Action is required - immediately, over the life of the loan, or within two years thereafter - the Action should be recorded as repair, replace, or maintain. Repair is used when only a part of an item requires action, such as the hydraulics and/or controls of a compactor. Replace is used when the entire item is replaced. Maintain is used where special, non-routine maintenance is required, such as the sandblasting of a swimming pool. In cases where a repair or maintenance may be needed now, and replacement or further maintenance may be needed later, separate lines may be used to identify the separate actions and timing.

## Now?

If the item involves a threat to the immediate health and safety of the residents, clearly affects curb appeal, will result in more serious problems if not corrected, or should otherwise be accomplished as part of an immediate repair, maintenance or replacement program, this space should be checked. Replacements which may be needed in year one, but do not require immediate attention, need not be checked.

## DM (Deferred Maintenance)

The DM (Deferred Maintenance) space is marked in any instances where current management practice is clearly inadequate and the owner's attention should be called to the item, even if no major expenditure or significant labor may be required. **Quantity** For items requiring action, the evaluator should note the Quantity of the system, with the applicable unit of measure entered (each, unit, square feet, square yards, linear feet, lump sum, etc.). **Field Notes** This space, as well as attachments may be used to record the type of component (16cf, frost. free, Hotpoint), the problem (valves leaking) or other information (consider replacement for marketing purposes, replace 30% per year, work in progress, etc.) that the evaluator will need to complete the Evaluator's Summary.

## Sample Form

The following example from the Dwelling Unit Systems and Conditions form illustrates how this form is properly used. The example presumes an 11 story building containing 1 and 2 bedroom units. There are 100 units. The age of the building is 9 years. The term of the proposed loan is 7 years.

| ITEM             | (EUL) | AGE | COND         | ERL | DIFF? | ACTION | NOW? | DM? | QUANTITY | NOTES                            |
|------------------|-------|-----|--------------|-----|-------|--------|------|-----|----------|----------------------------------|
| Countertop/Sink  | 10    | 9   | EX           | 10+ | 1     | -      | -    | -   | -        | Corian and Stainless Steel       |
| Refrigerator     | 15    | 9   | Good         | 6   | -     | REPL   | -    | -   | 100      | Hot point 16cf. ff 20%/yr @ YR 5 |
| Disposal         | 5     | 1-9 | Good         | 0-5 | -     | REPL   | -    | -   | 100      | 20%/yr. @ YR. 1 OPTG             |
| Bath Fixtures    | 20    | 9   | Good         | 11+ | -     | -      | -    | -   | -        | Dated looking                    |
| Ceiling Stack 04 | 4     | 9   | Water Damage | -   | -     | REPAIR | YES  | -   | 10 EA    | Repair Now - Plumbing leaks      |

Countertop/sinks are 9 years old. (The entry could also be "OR"). Condition is excellent, with an Effective Remaining Life of 10 years. This is significantly different from the anticipated Effective Remaining Life of 1 (an EUL of 10 years minus an Age of 9 years). Therefore, there is a footnote entry "1" in the Diff? (Difference) column. The footnote will indicate that this item is made of an exceptionally durable material (Corian), along with a top quality stainless steel sink. The evaluator's estimate of an Effective Remaining Life of 10 years + is beyond the term of +2. No capital need would be reported.

Refrigerators are also original, reported as 16 cf frost free Hotpoint. Replacement is expected around the Effective Remaining Life, noted as 20% annually and beginning in the 5th year of the loan when the refrigerators are 14 years old.

Disposals range from new to original (Age = 0-9). 20% per year replacements will be needed starting in year 1. The evaluator notes that disposals appear to be replaced as part of the project's normal operations.

Bath fixtures are original, and in good condition. No replacement is expected to be required during the term +2 years. The note indicates that they are “dated looking,” which may prompt a market consideration for replacement.

Ceiling is a special entry. The “04” stack of units has experienced water damage to ceiling from major plumbing leak. This is noted for repair NOW. As this apparently occurs in all 10 units in this stack and therefore is likely to have more than a modest cost, this action would be reported on the Immediate Physical Needs summary form.

## **Evaluator’s Summary Forms**

Two separate forms are used to summarize the evaluator’s conclusions from the Systems and Conditions Forms. One summarizes Immediate Physical Needs and the other summarizes the Physical Needs Over The Term +2 years.

### **Evaluator’s Summary: Immediate Physical Needs**

All of the items for which Now? is checked are transferred to this form. This form provides for the listing of Items, Quantity, Unit Cost and Total Cost of each. The Item and Quantity are transferred directly from the Systems and Conditions Form.

**Unit Cost** - This is the cost per unit (sf, ea, lf, etc.) in current dollars to implement the required action. The source of the cost estimate should be listed in a separate attachment. The sources may include a third-party estimation service (e.g., R.S. Means: Repair and Remodeling Cost Data), actual bid or contract prices for the property, estimates from contractors or vendors, the evaluator’s own cost files, or published supplier sources.

**Total Cost** - This is the result of multiplying the quantity times the unit cost. It is expressed in current year dollars.

**DM (Deferred Maintenance)** - If the item evidences deferred maintenance, this column is checked.

**Comments** - the comments column, or an attachment, should clearly provide information on the location and the nature of problem being addressed for each item. The information should be adequate for the owner to begin to implement the action.

### **Evaluator’s Summary: Physical Needs Over the Term**

Those items not listed on the Immediate Physical Needs form, but for which action is anticipated during the term of the loan plus two years, are listed on the form. The item and Quantity are transferred directly from the Systems and Conditions Form. The Unit Cost is calculated in the same manner as on the Immediate Physical Needs Form. An attachment should be provided which gives any necessary information on the location of action items and the problem being addressed for each item. The information should be adequate for the owner to begin to implement the action.



**Cost by Year** - the result of multiplying the quantity times the unit cost, in current dollars, is inserted in the column for the year in which the action is expected to take place. Generally, the Effective Remaining Life estimate provided by the evaluator on the Systems and Conditions will indicate the action year. For example, if the evaluator has indicated that the Effective Remaining Life of the parking lot paving is 4 years, the cost, in current dollars, is inserted in Year 4. If the items are likely to be done over a number of years, the costs, in current dollars should be spread over the appropriate period. For example, if the Effective Remaining Life of the Refrigerators is estimated to be 4 years, or 3-5 years, one third of the cost of replacing the refrigerators may appear in each of Years 3, 4, and 5.

**Total Uninflated** - After inserting all of the appropriate action items, the evaluator should total the items for each year.

**Total Inflated** - The evaluator should multiply the Total Uninflated times the factor provided to produce the Total Inflated.

**Total Inflated All Pages** - On the last sheet, the evaluator should include the Total Inflated Dollars for that page and all prior pages.

**Cumulative Total All Pages** - On the last sheet, the evaluator should insert the Total Inflated Dollars of that year and all prior years.

## **Special Repair and Replacement Requirements**

While performing a property inspection, the evaluator must be aware that certain building materials and construction practices may cause properties to experience (or to develop in a short time period) problems that can be corrected only with major repairs or replacements. The following identifies some specific construction related problems; however, the evaluator must be aware that other construction related problems may be found in any property and should be identified. If any of the following requirements are not met or if the evaluator determines that the following conditions (or others) are present, the evaluator must contact the lender immediately to discuss the timing as well as the cost of the repairs or replacements. The evaluator should ensure that any of these conditions are thoroughly addressed in the Physical Needs Assessment.

***Minimum Electrical Capacity*** - Each apartment unit must have sufficient electrical capacity (amperage) to handle the number of electrical circuits and their use within an apartment. Therefore, the evaluator must determine, based on referencing the National Electric Code as well as local building codes, what is the minimum electrical service needed. In any event, that service must not be less than 60 amperes.

***Electrical Circuit Overload Protection*** - All apartment unit circuits, as well as electrical circuits elsewhere in an apartment complex, must have circuit breakers as opposed to fuses as circuit overload protection.

***Aluminum Wiring*** - In all cases, where aluminum wiring runs from the panel to the outlets of a unit, the evaluator's inspection should ascertain that the aluminum wiring connections (outlets, switches, appliances, etc.) are made to receptacles rated to accept aluminum wiring or that corrective repairs can be done immediately by the owner.

***Fire Retardant Treated Plywood*** - While performing the roof inspection, the evaluator should investigate whether there is any indication that fire-retardant treated plywood was used in the construction of the roof (primarily roof sheathing). This inspection should focus on sections of the roof that are subjected to the greatest amount of heat (e.g., areas that are not shaded or that are poorly ventilated) and, if possible, to inspect the attic for signs of deteriorating fire-retardant treated plywood or plywood that is stamped with a fire rating.

Our concern is that certain types of fire-retardant treated plywood rapidly deteriorate when exposed to excessive heat and humidity or may cause nails or other metal fasteners to corrode. Common signs of this condition include a darkening of the wood and the presence of a powder-like substance, warping of the roof and the curling of the shingles. Fire-retardant treated plywood is most likely to be in townhouse properties or other properties with pitched, shingled roofs that were constructed after 1981 and that are located in states east of the Mississippi River and some southwestern states.

### **Narrative Conclusion and Attachments**

A complete narrative summary of the property and its components is not required. However, the evaluator should supply a concise summary of the conclusions reached concerning the overall condition of the property, its future prospects, and the quality of the current maintenance programs. *Any items affecting the health and safety of residents should be clearly flagged.*

The summary should include a discussion of the sampling approach used, discussed above, and any market issues which the evaluator believes it may be appropriate to address or which were noted by the lender.

The narrative, the forms use and the attachments (footnotes explaining Differences, information regarding sources of costs, and, if necessary, information needed to identify the location and type of problem addressed in the Evaluator's Summary: Physical Needs Over the Term) should be supplied to the lender.

## **EXPECTED USEFUL LIFE TABLES**

**Forms and Expected Useful Life Tables developed for Fannie Mae  
by On-Site Insight of Needham, MA**

| EXPECTED USEFUL LIFE TABLE  |                    |                     |  |
|---|--------------------|---------------------|--|
|   | Family Development | Elderly Development | Action   |
| SITE SYSTEMS  |                    |                     | “Action” equals replace unless<br>other wise noted   |
| NOTE: 50+ “long-lived” systems: EUL based on location and use specific conditions |                    |                     |  |
| Basketball Courts   | 15                 | 25                  | Fence Only   |
| Built Improvements (playgrounds/site furniture)                                   | 20                 | 20                  |  |
| Catch Basin   | 40                 | 40                  |  |
| Cold Water Lines  | 40                 | 40                  |  |
| Compactors  | 15                 | 15                  |  |
| DHW/Supply/Return   | 30                 | 30                  |  |
| Dumpsters   | 10                 | 10                  |  |
| Dumpster Enclosure  | 10                 | 10                  |  |
| Earthwork   | 50+                | 50+                 |  |
| Electrical Distribution Center  | 40                 | 40                  |  |
| Emergency Generator   | 15                 | 15                  |  |
| Fencing   |                    |                     |  |
| Chain Link  | 40                 | 40                  |  |
| Wrought Iron  | 50+                | 50+                 |  |
| Stockade/Basinweave   | 12                 | 12                  |  |
| Post and Rail   | 25                 | 25                  |  |
| Gas Lines   | 40                 | 40                  | Resurface<br>Resurface<br>Resurface<br><br>Fill Cracks/Repoint<br>Fill Cracks/Repoint<br>Replace<br>Fill Cracks/Repoint<br><br>Seal<br>Resurface<br>Resurface (grade and gravel) |
| Heating Supply/Return   | 40                 | 40                  |  |
| Incinerators  | 50+                | 50+                 |  |
| Irrigation System   | 30                 | 30                  |  |
| Lift Station  | 50                 | 50                  |  |
| Mail Facilities   | 10                 | 10                  |  |
| Landscaping   | 50+                | 50+                 |  |
| Parking   |                    |                     |  |
| Asphalt   | 25                 | 25                  |  |
| Gravel  | 15                 | 15                  |  |
| Pedestrian Paving   | 15                 | 15                  |  |
| Bimminors   | 15                 | 15                  |  |
| Concrete  | 30                 | 30                  |  |
| Retaining Walls   |                    |                     |  |
| Concrete  | 20                 | 20                  |  |
| Masonry   | 15                 | 15                  |  |
| Wood  | 15                 | 15                  |  |
| Stone   | 15                 | 15                  |  |
| Roadways  |                    |                     |  |
| Asphalt (Sealing)   | 5                  | 5                   |  |
| Asphalt   | 25                 | 25                  |  |
| Gravel  | 15                 | 15                  |  |
| Sanitary Treatment  | 40                 | 40                  |  |
| Site Electrical Main  | 40                 | 40                  |  |
| Site Gas Main   | 40                 | 40                  |  |
| Site Lighting   | 25                 | 25                  |  |
| Site Power Distribution   | 40                 | 40                  |  |
| Site Sanitary Lines   | 50+                | 50+                 |  |
| Site Sewer Main   | 50+                | 50+                 |  |
| Site Water Main   | 40                 | 40                  |  |
| Storm Drain Lines   | 50+                | 50+                 |  |
| Swimming Pool - Deck  | 15                 | 15                  |  |
| Mechanical Equipment (filter/pump/etc.)   | 10                 | 10                  |  |
| Tennis Courts   | 15                 | 15                  |  |
| Transformer   | 30                 | 30                  |  |
| Water Tower   | 50+                | 50+                 |  |

| EXPECTED USEFUL LIFE TABLE   |                    |                     |                                 |
|--|--------------------|---------------------|---------------------------------|
|  | Family Development | Elderly Development | Action                          |
| <b>BUILDING ARCHITECTURE</b>   |                    |                     |                                 |
| <b>NOTE: 50+ = “long-lived” systems: EUL based on location and use-specific conditions</b> |                    |                     |                                 |
| Appurtenant Structures   |                    |                     |                                 |
| Porches  | 50                 | 50                  | Paint at 5 years                |
| Wood Decks   | 20                 | 20                  | Paint at 5 years                |
| Storage Sheds  | 30                 | 30                  | Paint at 5 years                |
| Greenhouses  | 50                 | 50                  |                                 |
| Carports   | 40                 | 40                  |                                 |
| Garages  | 50+                | 50+                 |                                 |
| Basement Stairs  | 50+                | 50+                 |                                 |
| Building Mounted Exterior Lighting   | 6                  | 10                  |                                 |
| Building Mounted HID Lighting  | 6                  | 20                  |                                 |
| Bulkheads  | 30                 | 30                  |                                 |
| Canopies   |                    |                     |                                 |
| Wood/Metal   | 40                 | 40                  | Replace                         |
| Concrete   | 20                 | 20                  | Re-roof                         |
| Ceilings, Exterior or Open   | 5                  | 5                   | Paint                           |
| Chimney  | 25                 | 25                  | Point                           |
| Common Area Doors (fire/hall/closet/etc.)  | 50+                | 50+                 |                                 |
| Common Area Floors   |                    |                     |                                 |
| Ceramic/Quarry Tile/Terrazzo   | 50+                | 50+                 | Replace                         |
| Wood (strip or parquet)  | 30                 | 30                  | Replace Portion/Sand and Finish |
| Resilient Flooring (tile or sheet)   | 15                 | 15                  | Replace                         |
| Carpet   | 7                  | 7                   | Replace                         |
| Concrete   | 50+                | 50+                 | Replace                         |
| Common Area Railings   | 50+                | 50+                 |                                 |
| Common Area Ceilings   |                    |                     |                                 |
| Concrete/Drywall/Plaster   | 50+                | 50+                 | Replace (paint 5-8 years)       |
| Acoustic Tile  | 20                 | 20                  | Replace                         |
| Common Area Countertop & Sink  | 20                 | 20                  |                                 |
| Common Area Dishwasher   | 15                 | 15                  |                                 |
| Common Area Disposal   | 5                  | 5                   |                                 |
| Common Area Walls  | 50+                | 50+                 | Replace (paint 5-8 years)       |
| Exterior Common Doors  |                    |                     |                                 |
| Aluminum and Glass   | 30                 | 30                  | Door only                       |
| Solid Core (wood or metal)   | 25                 | 25                  | Door only                       |
| Amo  | 15                 | 30                  | Door and mechanism              |
| Exterior Stairs  |                    |                     |                                 |
| Wood   | 30                 | 30                  | Replace                         |
| Filled Metal Pan   | 20                 | 20                  | Replace                         |
| Concrete   | 50+                | 50+                 | Replace                         |
| Exterior Unit Doors  | 25                 | 25                  |                                 |
| Exterior Walls   |                    |                     |                                 |
| Aluminum Siding  | 15                 | 15                  | Prep and Paint                  |
| Brick or Block   | 40                 | 40                  | Repoint                         |
| Brownstone/Stone Veneer  | 20                 | 20                  | Waterproof and Caulk            |
| Glass Block  | 15                 | 15                  | Recaulk                         |
| Granite Block  | 40                 | 40                  | Repoint                         |
| Metal/Glass Curtain Wall   | 10                 | 10                  | Recaulk                         |
| Pre-cast Concrete Panel  | 15                 | 15                  | Recaulk                         |
| Vinyl Siding   | 30                 | 30                  | Replace                         |
| Wood shingle, Clapboard, Plywood, Stucco   | 5                  | 5                   | Prep and Paint/Stain            |
| Fire Escapes   | 40                 | 40                  | Resecure                        |
| Foundations  | 50+                | 50+                 |                                 |

| EXPECTED USEFUL LIFE TABLE                 |                    |                     |                       |
|--|--------------------|---------------------|-----------------------|
|  | Family Development | Elderly Development | Action                |
| Hatches/Skylights                          |                    |                     |                       |
| Access Hatch                               | 30                 | 30                  |                       |
| Smoke Hatch or Skylight                    | 50+                | 50+                 |                       |
| Insulation/Wall                            | 50+                | 50+                 |                       |
| Interior Lighting                          | 25                 | 25                  |                       |
| Interior Railings                          | 50+                | 50+                 |                       |
| Kitchen Cabinets                           | 20                 | 20                  |                       |
| Local HVAC                                 |                    |                     |                       |
| Electrical Fan Coil                        | 20                 | 20                  |                       |
| Electric Heat/Electrical AC                | 15                 | 15                  |                       |
| Gas Furnace With Split DX AC               | 20                 | 20                  |                       |
| Heat Pump w/ Supplementary Electrical      | 15                 | 15                  |                       |
| Heat Pump, Water Source                    | 20                 | 20                  |                       |
| Hydronic Fan Coil                          | 30                 | 30                  |                       |
| Hydronic Heat/Electrical AC                | 20                 | 20                  |                       |
| Mail Facilities                            | 10                 | 30                  |                       |
| Parapet Wall                               | 50+                | 50+                 |                       |
| Penthouse                                  | 25                 | 25                  | New Door and Pointing |
| Public Bathroom Accessories                | 7                  | 7                   |                       |
| Public Bathroom Fixtures                   | 15                 | 15                  |                       |
| Radiation                                  |                    |                     |                       |
| Hydronic (baseboard or freestanding)       | 50                 | 50                  |                       |
| Electric Baseboard                         | 25                 | 25                  |                       |
| Electric Panel                             | 20                 | 20                  |                       |
| Railings Roof                              | 10                 | 10                  | Paint                 |
| Refrigerator, Common Area                  | 15                 | 15                  |                       |
| Residential Glass Doors                    |                    |                     |                       |
| Sliding                                    | 15                 | 15                  |                       |
| Atrium/French                              | 30                 | 30                  |                       |
| Roof Covering                              |                    |                     |                       |
| Aluminum Shingles                          | 40                 | 40                  |                       |
| Asphalt Shingles                           | 20                 | 20                  |                       |
| Built-up (BUR)                             | 20                 | 20                  |                       |
| Membrane                                   | 20                 | 20                  |                       |
| Metal (pre -formed)                        | 40                 | 40                  |                       |
| Slate, Tile, Clay, or Concrete Shingles    | 50+                | 50+                 |                       |
| Wood Shingles                              | 20                 | 20                  |                       |
| Roof Drainage Exterior (gutter and fascia) | 25                 | 25                  | New Gutters           |
| Roof drainage Interior (Drain Covers)      | 50+                | 50+                 |                       |
| Roof Structure                             | 50+                | 50+                 |                       |
| Slab                                       | 50+                | 50+                 |                       |
| Service Doors                              | 25                 | 25                  |                       |
| Soffits                                    |                    |                     |                       |
| Wood / Stucco / Concrete                   | 5                  | 5                   | Paint<br>Replace      |
| Aluminum or Vinyl                          | 25                 | 25                  |                       |
| Stair Structure                            | 50+                | 50+                 |                       |
| Storm/Screen Doors                         | 7                  | 15                  |                       |
| Storm/Screen Windows                       | 20                 | 20                  |                       |
| Waterproofing Foundation                   | 50+                | 50+                 |                       |
| Window Security                            | 40                 | 40                  |                       |
| Windows (Frames and Glazing)               | 30                 | 30                  |                       |
| Wood Floor Frame                           | 50+                | 50+                 |                       |

| EXPECTED USEFUL LIFE TABLE   |                    |                     |                                 |
|--|--------------------|---------------------|---------------------------------|
|  | Family Development | Elderly Development | Action                          |
| <b>DWELLING UNITS</b>  |                    |                     |                                 |
| <b>NOTE: 50+ = "long-lived" systems: EUL based on location and use-specific conditions</b> |                    |                     |                                 |
| Bath Accessories   | 10                 | 15                  |                                 |
| Bath Fixtures (Sink, toilet, tub)  | 20                 | 20                  |                                 |
| Closet Doors   | 10                 | 20                  |                                 |
| Countertop and Sink  | 10                 | 20                  |                                 |
| Dishwasher   | 10                 | 15                  |                                 |
| Disposal   | 5                  | 8                   |                                 |
| Electric Fixtures  | 20                 | 20                  |                                 |
| Hallway Door   | 30                 | 50                  | Door Only                       |
| Heat Detectors   | 20                 | 20                  |                                 |
| Interior Door  | 30                 | 50                  | Door Only                       |
| Interior Stairs  | 50+                | 50+                 |                                 |
| Kitchen Cabinets   | 20                 | 25                  |                                 |
| Living Area Ceilings   |                    |                     |                                 |
| Concrete/Drywall/Plaster   | 50+                | 50+                 | Replace (Paint at 5-8 years)    |
| Acoustic Tiles   | 20                 | 20                  |                                 |
| Living Area Floors   |                    |                     |                                 |
| Ceramic/Quarry Tile/Terrazzo   | 50+                | 50+                 | Replace                         |
| Wood (strip or parquet)  | 30                 | 30                  | Replace Portion/Sand and Finish |
| Resilient Flooring (tile or sheet)   | 15                 | 20                  | Replace                         |
| Carpet   | 7                  | 10                  | Replace                         |
| Concrete   | 50+                | 50+                 | Replace                         |
| Living Area Walls  | 50+                | 50+                 | Replace (Paint at 5-8 years)    |
| Local HVAC   |                    |                     |                                 |
| Electric Fan Coil  | 20                 | 20                  |                                 |
| Electric Heat/Electric AC  | 15                 | 15                  |                                 |
| Evaporative Condenser ("swamp cooler")   | 20                 | 20                  |                                 |
| Gas furnace With Split DX AC   | 20                 | 20                  |                                 |
| Heat Pump w/ Supplementary Electric  | 15                 | 15                  |                                 |
| Heat Pump, Water Source  | 20                 | 20                  |                                 |
| Hydronic Fan Coil  | 30                 | 30                  |                                 |
| Hydronic Heat/Electric AC  | 20                 | 20                  |                                 |
| Range  | 15                 | 20                  |                                 |
| Rangehood  | 15                 | 15                  |                                 |
| Refrigerator   | 15                 | 15                  |                                 |
| Smoke/Fire Detectors   | 10                 | 10                  |                                 |
| Unit Air Conditioning (Window)   | 15                 | 15                  |                                 |
| Unit Electric Panel  | 50+                | 50+                 |                                 |
| Unit Level Boiler  | 25                 | 25                  |                                 |
| Unit Buzzer/Intercom   | 20                 | 30                  |                                 |
| Unit Level DHW   | 10                 | 10                  |                                 |
| Unit Level Hot Air Furnace   | 25                 | 25                  |                                 |
| Unit Radiation   |                    |                     |                                 |
| Hydronic or Steam (baseboard or freestanding)  | 50                 | 50                  |                                 |
| Electric Baseboard   | 25                 | 25                  |                                 |
| Unit Vent/Exhaust  | 15                 | 15                  |                                 |
| Unit Wiring  | 99                 | 99                  |                                 |
| Vanities   | 20                 | 20                  |                                 |
| Window Covering  | 3-20               | 3-25                | Material/User Specific          |

| EXPECTED USEFUL LIFE TABLE   |                    |                     |                          |
|--|--------------------|---------------------|--------------------------|
|  | Family Development | Elderly Development | Action                   |
| <b>MECHANICAL/ELECTRICAL</b>   |                    |                     |                          |
| <b>NOTE: 50+ = "long-lived" systems: EUL based on location and use specific conditions</b> |                    |                     |                          |
| Central Unit Exhaust, Roof Mounted   | 15                 | 15                  |                          |
| Chilled Water Distribution   | 50+                | 50+                 |                          |
| Chilling Plant   | 15                 | 25                  |                          |
| Compactor  | 15                 | 15                  |                          |
| Cooling Tower  | 25                 | 25                  |                          |
| Electrical Switchgear  | 50+                | 50+                 |                          |
| Electrical Wiring  | 50+                | 50+                 |                          |
| Elevator, Controller/Dispatcher  | 15                 | 20                  |                          |
| Elevator, Cab  | 15                 | 20                  | Rebuild Interior         |
| Elevator, Machinery  | 30                 | 30                  |                          |
| Elevator, Shaftway Doors   | 20                 | 30                  | Replace Gibs and Rollers |
| Elevator, Shaftways  |                    |                     |                          |
| Hoist Rails, Cables, Traveling Equipment   | 25                 | 25                  |                          |
| Hydraulic Piston and Leveling Equipment  | 25                 | 25                  | Re-sleeve Piston         |
| Emergency Call Alarm System, Station   | 15                 | 15                  |                          |
| Emergency Generator  | 35                 | 35                  |                          |
| Emergency Lights   | 10                 | 10                  | Battery operated         |
| Evaporative Cooler   | 15                 | 15                  |                          |
| Fire Pumps   | 20                 | 20                  | Pump Motor               |
| Fire Suppression   | 50+                | 50+                 | Piping                   |
| Gas Distribution   | 50+                | 50+                 | Piping                   |
| Heat Sensors   | 15                 | 15                  |                          |
| Heating Risers and Distribution  | 50+                | 50+                 |                          |
| Heating Water Controller   | 15                 | 15                  |                          |
| Hot and Cold Water Distribution  | 50                 | 50                  |                          |
| HVAC   |                    |                     |                          |
| Cooling Only   | 15                 | 15                  |                          |
| Heat Only  | 15                 | 15                  |                          |
| Heating and Cooling  | 15                 | 15                  |                          |
| Master TV System   | 15                 | 15                  |                          |
| Outdoor Temperature Sensor   | 10                 | 10                  |                          |
| Sanitary Waste and Vent System   | 50+                | 50+                 |                          |
| Sewage Ejectors  | 50                 | 50                  |                          |
| Buzzer/Intercom Central Panel  | 15                 | 15                  |                          |
| Smoke & Fire Detection System, Central Panel   | 15                 | 15                  |                          |
| Sump Pump  |                    |                     |                          |
| Residential  | 7                  | 7                   | Replace                  |
| Commercial   | 15                 | 15                  | Replace Motor            |
| Water Softening and Filtration   | 15                 | 15                  |                          |
| Water Tower  | 50+                | 50+                 |                          |
| Boiler Room Equipment  |                    |                     |                          |
| Blowdown and Water Treatment   | 25                 | 25                  |                          |
| Boiler Room Pipe Insulation  | With Boiler        | With Boiler         |                          |
| Boiler Room Piping   | With Boiler        | With Boiler         |                          |
| Boiler Room Valves   | 15                 | 15                  | Repack Valves            |
| Boiler Temperature Controls  | With boiler        | With boiler         |                          |
| Boilers  |                    |                     |                          |
| Oil-fired Sectional  | 22                 | 22                  |                          |
| Gas or Dual-fuel-fired Sectional   | 25                 | 25                  |                          |
| Oil Gas or Dual-fuel-fired Package, Low MBH  | 30                 | 30                  |                          |



| <p align="center"><b>EXPECTED USEFUL LIFE TABLE</b></p> <p align="center"><b>Family Development      Elderly Development</b></p> |             |             |                             |
|--|-------------|-------------|-----------------------------|
|  |             |             | <b>Action</b>               |
| <b>MECHANICAL/ELECTRICAL<br/>(continued)</b>   |             |             |                             |
| Oil Gas or Dual-fuel-fired Package, High MBH   | 40          | 40          |                             |
| Gas-fired Atmospheric  | 25          | 25          |                             |
| Electric   | 20          | 20          |                             |
| Bottled Gas Storage  | 20          | 20          |                             |
| Building Heating Water Temperature Controls  |             |             |                             |
| Residential  | 12          | 12          |                             |
| Commercial   | 15          | 15          |                             |
| Combustion Air   |             |             |                             |
| Duct with Fixed Louvers  | 50+         | 50+         |                             |
| Motorized Louver and Duct  | 25          | 25          |                             |
| Make-up Air  | 25          | 25          |                             |
| Compressors  | 15          | 15          |                             |
| Condensate and Feedwater   |             |             |                             |
| Feedwater Only (Hydronic)  | 10          | 10          |                             |
| Condensate and Feedwater (Steam)   | With Boiler | With Boiler |                             |
| DHW Circulating Pumps  | By Size     | By Size     |                             |
| DHW Generation   |             |             |                             |
| Tank Only, Dedicated Fuel  | 10          | 10          |                             |
| Exchanger in Storage Tank  | 15          | 15          |                             |
| Exchanger in Boiler  | 15          | 15          |                             |
| External Tankless  | 15          | 15          |                             |
| Instantaneous  | 10          | 10          |                             |
| DHW Storage Tanks  |             |             |                             |
| Small (up to 150 gallons)  | 12          | 12          |                             |
| Large (over 150 gallons)   | 7           | 7           |                             |
| Domestic Cold Water Pumps  | 15          | 15          |                             |
| Fire Suppression   | 50+         | 50+         |                             |
| Flue Exhaust   | With Boiler | With Boiler |                             |
| Free Standing Chimney  | 50+         | 50+         |                             |
| Fuel Oil Storage   | 25          | 25          |                             |
| Fuel Transfer System   | 25          | 25          |                             |
| Heat Exchanger   | 35          | 35          |                             |
| Heating Water Circulating Pumps  | By size     | By size     |                             |
| Line Dryers  | 15          | 15          |                             |
| Motorized Valves   | 12          | 12          |                             |
| Outdoor Temp Sensor  | 10          | 10          |                             |
| Pneumatic Lines & Controls   | 30          | 30          |                             |
| Purchased Steam Supply Station   | 50+         | 50+         |                             |
| Solar Hot Water  | 20          | 20          |                             |
|  |             |             | Replace Collector<br>Panels |